



#5/A  
4-12-02  
GM

Patent

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:	)	
Michael D. Ruehle	)	
	)	Examiner: Not yet assigned
	)	
Application No.: 09/965,916	)	Art Unit: 2152
	)	
Filed: September 28, 2001	)	Attorney Docket No.: 42390.P11975
	)	
For: METHOD AND APPARATUS	)	
FOR PERFORMING MODULAR	)	
MULTIPLICATION	)	

Commissioner for Patents  
Washington, D.C. 20231

**RECEIVED**

APR 09 2002

**Technology Center 2100**

**PRELIMINARY AMENDMENT**

Dear Sir:

Prior to examining the above-referenced U.S. patent application, please make the following amendments:

**IN THE SPECIFICATION**

Please replace paragraph 3 beginning on page 2 with the following rewritten paragraph:

A

-- Conventional modular multipliers often include a linear systolic array or "chain" of processing elements (PEs) implemented in hardware such as an application-specific integrated circuit (ASIC) or a programmable logic device such as a field programmable gate array (FPGA). In conventional modular multipliers, a given processing element performs a portion of a modular multiplication operation by processing data and then passing it to its neighboring or adjacent PEs in a given clock cycle. In the next clock cycle, the original processing element remains idle while the neighboring processing elements process the received data and pass the processed data back, after which the original processing element may spend another cycle computing. Thus, in most conventional modular multipliers, each processing element does useful work every other clock cycle and is idle the remainder of the time. In one traditional modular multiplier, these idle

215208



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PTO/SB/21 (08-00)  
Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/965,916
	Filing Date	September 28, 2001
	First Named Inventor	Michael D. Ruehle
	Group Art Unit	Not yet assigned
	Examiner Name	Not yet assigned
Total Number of Pages in This Submission	Attorney Docket Number 42390P11975	

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ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Reply (Preliminary) <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <b>Postcard; and Check No. 02353 for \$138.00.</b>
<b>Remarks</b>  <b>Please charge any insufficiencies, if any, to Deposit Account Number 02-2666</b>		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm or Individual name	<b>Justin M. Dillon, Reg. No. 42,486</b>	Blakely Sokoloff Taylor & Zafman 12400 Wilshire Boulevard Seventh Floor Los Angeles, CA 90025-1026
Signature		
Date	3/25/02	

CERTIFICATE OF MAILING		
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date: <b>March 25, 2002</b>		
Typed or printed name	<b>Dionne Robinson</b>	
Signature		Date <b>3/25/02</b>

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**FEE TRANSMITTAL**

APR 04 2002

**for FY 2002**

Patent fees are subject to annual revision.

**Complete if Known**

Application Number	09/965,916
Filing Date	September 28, 2001
First Named Inventor	Michael D. Ruehle
Examiner Name	Not yet assigned
Group Art Unit	Not yet assigned
Attorney Docket No.	42390P11975

TOTAL AMOUNT OF PAYMENT (\$ ) 138.00

**METHOD OF PAYMENT**

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number 02-2666  
 Deposit Account Name Blakely Sokoloff Taylor & Zafman LLP

☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

☐ Applicant claims small entity status. See 37 CFR 1.27

2. ☒ Payment Enclosed:

☒ Check ☐ Credit card ☐ Money Order ☐ Other

**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 740	201 370	Utility filing fee	
106 330	206 165	Design filing fee	
107 510	207 255	Plant filing fee	
108 740	208 370	Reissue filing fee	
114 160	214 80	Provisional filing fee	

SUBTOTAL (1) (\$ ) -0-

**2. EXTRA CLAIM FEES**

Total Claims	Extra Claims	Fee from below	Fee Paid
6	-5** = 1	84	84
33	-30** = 3	18	54
Multiple Dependent			138

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 84	202 42	Independent claims in excess of 3
104 280	204 140	Multiple dependent claim, if not paid
109 84	209 42	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ ) 138.00

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

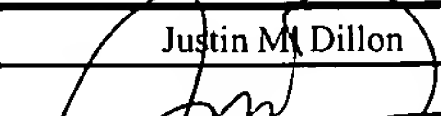
Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for <i>ex parte</i> reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 400	216 200	Extension for reply within second month	
117 920	217 460	Extension for reply within third month	
118 1,440	218 720	Extension for reply within fourth month	
128 1,960	228 980	Extension for reply within fifth month	
119 320	219 160	Notice of Appeal	
120 320	220 160	Filing a brief in support of an appeal	
121 280	221 140	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,280	241 640	Petition to revive - unintentional	
142 1,280	242 640	Utility issue fee (or reissue)	
143 460	243 230	Design issue fee	
144 620	244 310	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Processing fee under 37 CFR 1.17(q)	
126 180	126 180	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 740	246 370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 740	249 370	For each additional invention to be examined (37 CFR § 1.129(b))	
179 740	279 370	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ ) -0-

**SUBMITTED BY**

Name (Print/Type)	Justin M. Dillon	Registration No. (Attorney/Agent)	42,486	Telephone	512/330-0844
Signature		Date	3/25/02		

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